Before the

FEDERAL COMMUNICATIONS COMMISSION

Washington, D.C. 20554

In the Matter of	)	
Amendment of Part 73 of the	)	
Commission's Rules to Permit	)	Docket No.: **MM DOCKET NO. 99-325**
The Introduction of Digital Audio	)	
Broadcasting in the AM	)	
And FM Broadcast Services	)	

COMMENTS of John Pavlica, Jr.

As an American consumer, as an electrical engineer, and as a licensed Amateur Radio operator, I respectfully submit my comments regarding digital broadcasting in the United States.

First, I request the FCC respond to and act upon three documents previously submitted. This citizen requests the FCC please act upon my "**COUNTERPROPOSAL**" document entered into the FCC ECFS on February 11, 2004. This document addresses the issue of nighttime AM broadcasting, and addresses receiver quality issues, rather than trying to fight adjacent skywave interference at night from digital sources. Also on file, without any FCC response, is my "**MOTION TO ENLARGE ISSUE**" document entered into the FCC ECFS on August 22, 2003. In addition, my first motion, a "**MOTION TO DISMISS**" was entered into the FCC ECFS on

January 13, 2003, and is without any reply. I request the FCC please indicate how they intend to respond to these three previously submitted documents. Thank you.

Second, I would like to add my comments regarding the FURTHER NOTICE OF PROPOSED RULEMAKING (FNPRM) and NOTICE OF INQUIRY adopted April 15, 2004 and released on April 20, 2004. The FNPRM paragraph number or numbers that my comment refers to is shown in (parenthesis) at the beginning each comment.

(3) With the FCC estimate of 500 million to 800 million analog radio receivers in the United States, it is obvious that analog compatibility must remain first and foremost in any proposed digital radio scheme. In addition to indefinite analog compatibility, I propose that the FCC mandate that ANY digital broadcasting receiver with an IBOC (or other DAB method) FM tuner section must also contain an "enhanced" AM tuner section (IBOC=day with C-Quam or CAM-D=night, etc). Please refer to my COUNTERPROPSAL of 02/11/04 for details regarding enhancements to AM receivers.

(4) Whereas the FM band has nearly suitable bandwidth for the addition of digital audio and data information, it appears that there is insufficient bandwidth available on the AM band to support a high data rate for IBOC digital, and does cause (in some cases) objectionable adjacent channel interference. Alternate AM methods need to be examined, such as the Kahn Communications "CAM-D" system or "DRM" in addition to improvements to the iBiquity IBOC on the AM band.

(7) I take exception to your statement made in paragraph 7 that says: "The tests also indicated that coverage for both systems would be at least comparable to analog coverage". Testing of AM IBOC

does not show an “apple to apple” equality with analog. One map shown by WOR indicates a smaller area of digital coverage than their analog coverage area. Even more important, the highest quality IBOC AM (stereo audio) coverage area is even smaller than their core digital area. Contrast that small digital coverage area with analog stereo AM. In 1998, I used to listen to WSM-AM from Nashville, Tennessee at my Toledo location with clear stereo audio, 429 air miles from their transmitting location. Imagine adding some recent DSP advances to that 1998 tuner, and WSM would have a reason to resume stereo broadcasting on the AM band, rather than on the satellite.

(8) I believe that you need to revise your statement that “IBOC digital transmissions may not simultaneously transmit analog C-QUAM AM Stereo”. It is my opinion that you should revise this statement to indicate that stations have the option of broadcasting IBOC-AM during daytime hours and C-QUAM stereo during nighttime hours. I suggest nighttime AM broadcasting using the IBOC iBiquity Dexstar Exciter programmed for C-Quam broadcasting! The Dexstar exciter unit would have coding added to provide the stereo C-Quam compatible component for nighttime broadcasting but would then revert to their IBOC during the day. This is one potential way to solve the nighttime interference problem. Visteon also has developed a receiver that could work with this system. In addition, if an IBOC station was ‘down for maintenance’, they could revert to their backup wideband C-Quam transmitter.

(12) There is a fallacy that “digital” is always better than analog – and that is not always the case. Doesn’t your old analog cellphone have a much more real-sounding voice than the robotic tin can digital cellphone? Audio fullness of a new LP record versus digital audio on a dial-up connection? Digital for the sake of digital, is not reason enough to add digital interference to the AM broadcast

band. Digital ENHANCEMENTS to analog audio is perhaps the other route to be examined in improving the AM broadcast band (in addition to content – but that's another story). In addition, AM and FM broadcasters using digital should remain a "free" broadcast service for the consumer, with no fees or anti-copy protection methods. It should remain 'advertiser-supported'.

(14) It is my opinion that any conversion to any digital (or any enhanced broadcasting method) should remain totally voluntary. Forcing digital radio broadcasting will kill-off what's left of the small stations after the Telecommunications Act of 1996 has already destroyed the landscape of many former "mom and pop" radio stations in America. This is a very important issue – any change must be voluntary and maintain compatibility with the half-billion receivers already in use.

(15), (16) and (17) The AM broadcast band must NEVER become a totally digital mode broadcast band. In terms of national security, all clear-channel 50KW stations should be required to broadcast in analog in times of local or nation emergency due to their long range and simple analog receiver circuitry. During the large power blackout in August 2003, the 50KW AM radio stations in Detroit and in Cleveland were my only "local" source of information about the blackout for quite a while. Even if several different digital modes become the preferred method of AM broadcast, I still believe that the class 1A clear channel station on AM must maintain analog backup. In addition, I believe that a portion of the existing AM band should be reserved for legacy analog - indefinitely.

(30) The FCC should mandate that any radio capable of digital IBOC reception must also have the ability to receive the same station main program in analog as well (preferably in stereo AM and stereo FM).

(34) The main program channel of any digital (and analog) broadcast station should always remain to service their city of license with local programming.

(39) Station identification should remain at the top of the hour listing their call letters, city of license; however, if it is not the main program, then they should also add "audio stream #2". For example, if a station had a 2nd audio stream (with just continuous weather data) at the T-O-H they would ID themselves as "WSPD, Stereo AM 1370, Toledo, audio stream #2".

(41) In addition to 540-1700KHz for AM broadcasting, perhaps a section from 460KHz to 530KHz could be added for all digital AM (thereby not requiring analog compatibility) as most receivers do not coverage this range, nor adding a few more digital only AM allocations from 1710 to 1770KHz.

(42) In my opinion, IBOC nighttime broadcasting should be prohibited for the next 10 years. There are other nighttime options for the AM band. Please refer to my COUNTERPROPOSAL of 02/11/2004 for details on how I believe we can best address the AM band nighttime enhanced reception methods. In addition, since my COUNTERPROPOSAL filing of 02/11/2004, Mr. Leonard Kahn has presented what appears to be a viable alternative for a digitally enhanced nighttime AM broadcasting method that should also be examined as nighttime AM band option.

(43), (44), (45) I am opposed to nighttime use of IBOC broadcasting on the AM band, as it appears to obliterate the analog audio its first adjacent stations when IBOC is used at night. I am basing my observation on of the loss of readable audio from KXEL (1540 KHz) when WSAI (1530 KHz) had one-minute on/one-minute off testing of the IBOC carrier at night. Based on my observations, I suggest further testing, and reviewing of others options, as I have discussed in my MOTION TO ENLARGE ISSUE, dated 08/22/2003.

(46) C-QUAM AM Stereo should be permitted to be broadcast with no sunset date. Stations that wish to broadcast with IBOC during the day should be permitted, or even encouraged, to broadcast in C-QUAM AM stereo at night. AM stations on the "expanded band" should be reminded of their commitment to AM Stereo when their application shows a stereo preference, as many expanded band stations have not made good on this promise to broadcast in stereo AM. As I have previously mentioned, AM stations should not have to discontinue analog C-QUAM AM stereo when they install IBOC. They could use IBOC for daytime, and C-QUAM for nighttime, or C-QUAM 24/7 when the IBOC is down for maintenance, or when IBOC interference to adjacent stations requires switching to the C-QUAM analog. Please refer to my COUNTERPROPOSAL dated 02/11/2004 for more comments on AM Stereo.

(70) The FCC needs to verify that IBOC broadcasts do not cause adjacent channel interference to our neighbors in Canada and Mexico, and analog may be mandated at night to avoid harmful interference to our neighboring countries.

SUMMARY

In summary, I URGENTLY request the Commission mandate NO IBOC nighttime broadcasting for a 10-year period; after which IBOC should be re-examined for compatibility with the radio receivers at that time and a determination be made about adding IBOC-nighttime. In the meantime, analog C-QUAM stereo, Kahn CAM-D and DRM should be tested as options for nighttime AM broadcasting – with new digitally-enhanced AM receivers (DSP noise reduction, stereo decoding, audio buffering, automatic AM bandwidth). Please review my previous COUNTERPROPOSAL.

As always, I thank you for allowing me to voice my opinions and suggestions.

Respectfully submitted,

John Pavlica, Jr.